

# **LIBBY/HUNGRY HORSE DAMS WILDLIFE MITIGATION HABITAT PROTECTION'**

Interim Report

Prepared by

Marilyn Wood

Montana Department of Fish, Wildlife and Parks

Prepared for

Robert Walker, Project Manager  
U.S. Department of Energy  
Bonneville Power Administration  
Division of Fish and Wildlife  
P.O. Box 3621  
Portland, OR 97208-3621

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## **INTRODUCTION**

The Columbia River Basin Fish and Wildlife Program identified wildlife mitigation goals for Hungry Horse and Libby dams (1987). Specific programs goals included: (1) protect and/or enhance 4,564 acres of wetland habitat in the Flathead Valley; **(2)** protect **2,462** acres of prairie . habitat within the vicinity of the Tobacco Plains for Columbian sharp-tailed grouse; (3) protect 8,590 acres riparian habitat in northwest Montana for grizzly and black bears; and (4) protect 11,500 acres of terrestrial furbearer habitat through cooperative agreements with state and federal agencies and private landowners.

### **Project Objectives**

The purpose of this project is to continue to develop and obtain information necessary to evaluate and implement specific wildlife habitat protection actions in northwestern Montana. This report summarizes project work completed between May 1, 1990, and December 31, 1990. There were three primary project objectives during this time:

- I. Obtain specific information necessary to develop the mitigation program for Columbian sharp-tailed grouse.
- II. Continue efforts necessary to develop, refine, and coordinate the mitigation programs for waterfowl/wetlands and grizzly/black bears.
- III. Determine the opportunity and appropriate strategies for protecting terrestrial furbearer habitat by lease or management agreements on state, federal and private lands.

## **I. COLUMBIAN SHARP-TAILED GROUSE MITIGATION**

Columbian sharp-tailed grouse populations have declined throughout the Columbia River Basin as a result of habitat loss. The species is currently considered a candidate species for listing as a federal threatened or endangered species. Sharp-tailed grouse were affected by the development of Libby Dam through flooding of approximately 4,000 acres of year-round habitat. The Northwest Power Planning Council's Columbia River Basin Fish and Wildlife Program (1987) established a mitigation goal of protecting 2,462 acres of prairie habitat within the vicinity of the Tobacco Plains for Columbian sharp-tailed grouse.

The Tobacco Plains in the vicinity of Lake Koocanusa (Libby Dam) supports a remnant population of Columbian sharp-tailed grouse. Numerous entities including MDFWP, Kootenai National Forest, and Montana Nature Conservancy are cooperating in efforts to protect and maintain Columbian sharp-tailed grouse on the Tobacco Plains. Initial efforts focused on augmenting the population by releasing grouse transplanted from British Columbia. However, basic biological information on Tobacco Plains sharp-tailed grouse is needed to effectively direct habitat protection and enhancement efforts. A multi-entity technical committee established to provide guidance regarding protection and enhancement of sharptail habitat on the Tobacco Plains identified two priority objectives: (1) Protect existing occupied habitat, particularly the dancing ground and known wintering areas in the Tobacco Plains, and work with the landowners to develop management strategies that will benefit sharp-tailed grouse; and (2) Initiate a project that will identify important nesting and brood rearing habitat and develop strategies to protect these sites.

A two-year graduate student research project was developed to identify specific critical habitat necessary for the survival of Columbian sharp-tailed grouse on the Tobacco Plains. This information will be used to focus habitat protection efforts on critical habitat, and to work with landowners and other key entities to develop cost-effective management/protection strategies. Field work was initiated on March 15, 1990, and will conclude September 15, 1991. Specific objectives of this study include:

- A. Determine the critical nesting and brood-rearing seasonal habitats necessary to maintain Columbian sharp-tailed grouse on the Tobacco Plains.
- B. Describe the occupied habitats and their relative abundance of similar habitats in the Tobacco Plains.
- C. Document nesting success, brood survival, and fall recruitment of grouse.
- D. Develop management recommendations for the protection and/or enhancement of grouse habitat on the Tobacco Plains.

### **Summary of Preliminary Results**

The Tobacco Plains dancing ground (lek) was surveyed during spring to determine whether previously transplanted grouse survived and returned to the lek. A total of 10 grouse (8 males and 2 females) were observed during surveys in March and April 1990. Colored leg bands were observed on seven males indicating transplant success from 1988 and 1989 releases. The unmarked male grouse may represent a resident (non-transplanted) grouse or offspring. Two female grouse were observed attending the dancing ground, but leg bands were not visible.

To obtain information on nesting and brood rearing habitat, grouse were captured both on the Tobacco Plains and British Columbia and fitted with radio collars. Necklace type radio transmitters were obtained from Holohil Systems, Ltd., Ontario, Canada. The radio collars weighed approximately 11 grams and had a 1 year life expectancy.

A limited trapping effort was conducted on the Tobacco Plains in early April to refine trapping techniques and to attempt capture of "local" grouse. By radio equipping local grouse, we hoped to obtain information of habitat use by grouse familiar with the Tobacco Plains. Walk-in wing traps (Toepfer et al. 1988) were established on the dancing ground to capture grouse attending the lek. Three trap days resulted in the capture of 2 male grouse. Trapping was stopped to avoid any further disruption of the dancing ground on the Tobacco Plains.

The primary objective for trapping efforts in British Columbia was to capture up to 25 hens for transplanting to the Tobacco Plains. Previous trapping efforts during 1989, 1988, and 1987 had occurred on known leks outside of Kamloops, British Columbia. During 1990, we were required to trap on a privately owned ranch. Although adequate populations of groups were expected to be present, the actual locations of active leks were unknown.

Aerial surveys were conducted during early April to locate active leks on the ranch. The status of potential leks identified during aerial surveys were verified with ground searches. Two leks were located. Early morning observations documented 25 birds on one lek and 36 birds attending the other lek. Walk-in traps previously used with success in British Columbia were constructed on both leks. The entire lek display area was encircled with netting approximately 3 feet in height. Four smaller catch pens were located along the circle in order to capture grouse as they walked toward the main display area.

Trapping was initiated on April 11 and very few hens were observed attending the leks throughout the trapping period. However, male grouse were readily captured on both leks. Because of the lack of hen capture success, we decided to increase our trap efforts. A third lek was located and trapped with the walk-in wing trap used on the Tobacco Plains.

After four weeks of trapping on all three leks a total of 55 male (including some recaptures) and 5 female grouse were captured. Because of the low numbers of hens observed and captured, we suspect that most hens had attended the lek earlier than the April 11 trap initiation date. An early spring in south central British Columbia may have resulted in earlier lek attendance by female grouse as compared to previous years (D. Jury, pers. comm.).

Because of the relative ease of capturing males, we decided to test the effectiveness of spring transplant efforts as compared to transplants conducted during the summer. Eight males captured in British Columbia were fitted with radio collars and released on the same lek as captured. Our intent was to return in July during the molt period, recapture the radio collared grouse and transplant these birds to the Tobacco Plains. We did return in July and attempt to recapture the radio collared grouse at night with a large hand net. However, the grouse were difficult to find because of the dense, tall bunch grass communities. Only one bird was recaptured and subsequently released on the Tobacco Plains.

Spring trapping in British Columbia was discontinued on May 8, 1990, in order to allow the graduate student time to monitor the grouse transplanted to the Tobacco Plains. Five females and 10 males captured on the British Columbia leks were transplanted to Eureka and released on the lek by May 8. All hens and 6 of the males were fitted with radio transmitters.

All capture efforts resulted in a total of 8 males and 5 females fitted with radio collars and released on the Tobacco Plains. An additional 5 males were released with colored leg bands to indicate year of capture.

To summarize, a total of 11 males and 5 females were transplanted from British Columbia and released on the Tobacco Plains. Of these, 7 males and 5 females were radio equipped. An additional 2 males captured on the Tobacco Plains were equipped with radio collars. Thus, 14 grouse were equipped with radio collars.

Radio-equipped grouse were relocated daily throughout the nesting and brood-rearing period (May through mid September). Two grouse were chosen for intense daily radio tracking. This consisted of locating the birds up to four times daily: morning feeding, day loafing, evening feeding, and night roosting. All other grouse were located every other day at an arbitrary time. At the end of the week, two different birds were chosen for intense tracking. During fall and winter (October through December), radio-equipped grouse were relocated at least twice during each month through ground and aerial surveys.

Preliminary results of radio tracking documented the importance of the native bunchgrass habitat during the nesting and brood rearing period. Approximately 70 to 80 percent of relocations during May through July were in Section 26 which contained the active dancing ground. Another 10 to 15 percent of the relocations were on section 23 immediately north of the lek. Both sections were dominated by native grass communities.

According to radio locations, nesting was initiated during May. Nesting was documented for three of the five transplanted hens. One nest with 12 eggs was located in bunch grass habitat on a large drumlin approximately 2 miles north of the lek. This nest was revisited on June 5 and failure due to predation was documented. Two other hens successfully nested as documented by the observation of broods. One hen was observed with a brood of 8 chicks in June. By August 6, chicks were left in this brood. Another hen was observed with a brood of 5 chicks in July. Although the exact location of the nests for these 2 hens is not known, we believe both hens nested within one mile of the lek based on radio locations.

By late summer, the two broods consisted of six and five chicks. Hens with broods remained within one to two miles of the lek throughout the summer months. Most locations were documented in dense grass or shrub (rose, snowberry) communities.

Quantitative and qualitative data describing nesting and brood-rearing habitat was collected throughout the field season (June through mid-September). These data have not yet been analyzed.

Attempts to document fall recruitment of offspring were conducted in September and October by observing the lek. Several birds including two radio-equipped males were observed. During this early fall period, most grouse continued to occupy the bunch grass and shrub communities found near the lek.

However, two grouse left the Tobacco Plains area and were located in Canada throughout late fall and winter. One grouse remained on "Sharptail Prairie" approximately 10 miles from the lek. The other grouse was located in Wigwam Flats 24 miles north of the lek. In November and December, radio collared grouse were located at least twice per month. Most grouse remained in the vicinity of the lek and were typically found in wooded draws on the foothills east of the

lek.

As of January 1990, 7 of the 14 radio collared grouse were known to be alive and continued to provide information on habitat use (Table 1). Seven radio collars have been retrieved. The fate of these grouse is unknown in many cases; however, we presume that at least 1 female and 2 males were predated because of feathers found with the collar. The status of the 4 other birds is uncertain. Three of the radio collars may have fallen off the birds as these collars were broken at the same connection to the transmitter.

Table 1. Status of radio-equipped grouse on the Tobacco Plains, Eureka, Montana, January, 1991.

Frequency	Trap Location	status	Comments
127	Kamloops	<b>--FEMALES-- Alive</b>	No evidence brood 1990 12/90 Wigwam Cr, B.C.
149	Kamloops	Unknown	Collar retrieved 11/90 necklace broken, no feathers found
168	Kamloops	Dead	<b>Collar retrieved 7/3/90 primary feathers found</b>
208	Kamloops	Unknown	Collar retrieved 1/14/91 necklace broken
417	Kamloops	Alive	Tobacco Plains
029	Tobacco Plains	<b>--MALES-- Unknown</b>	Collar retrieved near lek; necklace intact
049	Kamloops	Alive	Tobacco Plains
069	Kamloops	Dead	Collar retrieved 7/12/90; feathers found
089	Kamloops	Alive	Tobacco Plains
108	Kamloops	Alive	Tobacco Plains
188	Tobacco Plains	Unk	<b>Collar</b> retrieved near <b>lek</b>
229	Kamloops	Alive	Winter locations on Sharptail Prairie, BC.
356	Kamloops	Alive	Tobacco Plains
377	Kamloops	Dead	Collar retrieved 5/90 near Moran Lake

### **Project Activities**

The Columbia Sharp-tailed Grouse Technical Committee met in October to review a proposal submitted by The Nature Conservancy to protect habitat on the Tobacco Plains. The proposed



project involves the acquisition of 400 acres of native bunchgrass prairie including the active dancing ground. The Nature Conservancy proposed a cooperative project to acquire and manage these lands using BPA mitigation funds and matching funds raised by the Conservancy. The committee recommended pursuing this project because it was consistent with their number one priority to protect the existing dancing ground.

### **Recommendations for Future Actions**

1. Develop management plan that incorporates the recommendations from the graduate student project, Manley's report (1988) and the technical committee. The plan will contain:
    - Important seasonal and year-round habitats.
    - Protection strategies for each site.
    - Enhancement/habitat manipulation needs.
    - Potential cooperators and projects.
    - Population objectives.
    - Monitoring schedule. (Time frame: July 1, 1992 - December 31, 1991.)
  2. Initiate a temporary, shared position to implement the management plan if recommended by the committee. (Time frame: January 1993 - January 1995.)
  3. Annual monitoring of spring dancing ground use to assess status of population.
  4. End of 5 years evaluate the status of grouse.
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## **II. WATERFOWL AND GRIZZLY BEAR/BLACK BEAR MITIGATION AND GENERAL HABITAT PROTECTION COORDINATION ACTIVITIES**

The purpose of this portion of the project is to continue efforts necessary to identify and implement habitat protection actions. Specific objectives included:

- A. Develop and update lists of potential cooperative projects or opportunities.
- B. Summarize committee recommendations.
- C. Provide input on program objectives and recommended projects to the Wildlife Mitigation Trust Advisory Committee.

### **Summary of Significant Results - Waterfowl Program**

The Waterfowl/Wetlands Technical Committee reviewed 5 project proposals. Most projects were reviewed in the field. The following criteria were considered for all projects: 1) will the project result in overall enhancement of waterfowl production; 2) is the project in close proximity to other areas currently being managed for waterfowl; and, 3) is the project feasible?

The U.S. Fish and Wildlife Service (USFWS) submitted four projects that they had identified and prioritized based on the potential for waterfowl production, degree of threat, and availability. These projects require fee title acquisition using mitigation funds with enhancement and long-term management costs supported by the USFWS funds. Three projects were located in Lake County; one project was located in Flathead County.

Of the four projects suggested by USFWS, one project rated higher than the others. The Bauer project involves acquisition of approximately 340 acres of cropland which historically supported several wetland basins. Several basins have been drained to increase crop production. It is estimated that the amount of wetland acres could be increased by a factor of 3. The project is immediately adjacent to the new Johnson Waterfowl Production Area managed by the USFWS.

Wetland, Inc. proposed a cooperative project involving State Department of Highways and mitigation funds. A field review of this project was completed and the committee recommended not pursuing the project based on the following reasons:

- 1. Not consistent with the objective to enhance duck production. The project, as proposed, was directed towards enhancing goose production although important brood-rearing areas would be flooded;
- 2. The project site is not suitable for maximizing waterfowl use due to the presence of 3 transmission lines bisecting the area and the potential for increased waterfowl mortality due to collisions. Development of this site could create problems leading to relocation of the lines or preventing future upgrading of the lines.

The Kootenai National Forest (KNF) submitted a package of proposals representing several small projects to enhance wetlands in forested habitat. Projects would be funded jointly by mitigation funds and the KNF under their cooperative "Challenge Cost Share" program. At this time these

proposals have not been reviewed by the technical committee.

General coordination on the Waterfowl Program was accomplished through various meetings. Program objectives and the potential for cooperative projects were discussed during the annual Interagency Waterfowl meeting. During this meeting, opportunities for cooperative projects with Department of State Highways and the National Waterfowl Habitat Management Plan were discussed. A panel discussion with the Flathead Wildlife Club on opportunities to enhance waterfowl production on private lands was also attended.

### **Summary of Significant Results - Grizzly bear/Black bear Program**

The Copper Gulch project was completed and resulted in protection of 107 acres of timbered upland and riparian habitat for grizzly and black bears and numerous other wildlife species. An independent appraisal was completed by July 1990 to assess the easement value. The appraisal was purchased with FWP funds (\$3,200). Field work related to the Easement Documentation Report was completed during May and June by Westech, Inc., a private consulting firm. The final report was submitted in August and funded by BPA (\$2,200). The easement document was filed on November 19, 1990 in the Sanders County Clerk and Recorder Office (\$110 BPA).

### **Summary of Significant Results - General Project Coordination**

Coordination on the Habitat Protection Project in general was accomplished through several meetings and presentations throughout this report period (May through December). The Habitat Protection Advisory Committee met in July to review the Columbian sharp-tailed grouse project. During this meeting, a field review of known important habitats including the dancing ground and nesting areas was completed.

Project objectives and a review of potential projects were presented to the Wildlife Mitigation Trust Advisory Committee during two separate meetings. Programs were also presented to the Flathead Basin Commission and the Bonneville Power Administration general coordination meeting.

Other activities relating to habitat protection included providing consultation on two separate easements in the Flathead valley. Biological information and advice on easement restrictions was provided to the Flathead Land Trust regarding a protection of riparian habitat on the Whitefish River. As a member of the Easement Review Team initiated by Farmers Home Administration (FmHA), we developed a proposal to protect 1,500 acres of forested habitat. This project is still under review by FmHA.

### **Recommendations for Future Actions**

1. Both the Waterfowl and Grizzly bear/Black bear technical committees have fulfilled their purposes to provide mitigation program direction. I recommend these committees be dissolved and implementation based on their recommendations proceed.
2. It is expected that a majority of habitat protection efforts in the future will be

focused on conservation easements. This is particularly true for the bear mitigation program as well as the Columbian sharp-tailed grouse program. To date, we have tried to complete projects where the long term management responsibilities for easement monitoring have been assumed by other agencies. As more projects are implemented the time and financial commitment to manage these easements will also increase. I recommend we pursue funding a local land trust organization to monitor and manage conservation easements not appropriate for either the state or federal agencies.

### III. TERRESTRIAL FURBEARER MITIGATION

Although actual numbers of terrestrial furbearers lost due to construction of Hungry Horse and Libby dams could not be determined, the loss assessments acknowledged the negative impacts to several terrestrial furbearer species as a result of flooding. Moderate to high impacts of preferred forested habitats were identified for **both marten (*Martes americana*) and Canada lynx (*Felis lynx*)**. **Bobcat (*Felis rufus*)** populations incurred low impacts due to habitat loss.

In general, loss of suitable habitat has been identified as the single most important threat to furbearer populations (Payne 1980). Habitat loss as a result of timber harvest has been the single most destructive **factor contributing to past declines of marten populations (Yeager 1950, Schupbach 1977: cited in Allen 1987)**. **Strategies to maintain and improve habitat quality for furbearers should be incorporated into management plans. Unfortunately, data describing furbearer response to habitat manipulations as well as guidelines to mitigate habitat loss are unavailable (Allen 1987).**

The Columbia River Basin Fish and Wildlife Program (1987) identified the goal of protecting 11,850 acres of old-growth forest for terrestrial furbearers in the Swan Valley. The Swan Valley was initially targeted because of the presence of suitable habitat and the large checkerboard ownership pattern. Implementation strategies were to include developing management agreements with major landowners or land managers in the Swan Valley. These agreements would address protection of existing suitable habitat and enhancement of marginal areas.

The objectives during this report period (September 1, 1990 through December 31, 1990) included:

1. Review habitat requirements necessary to develop management objectives and guidelines; and,
2. Evaluate the opportunity for developing management agreements to protect terrestrial furbearer habitat.

#### Summary of Significant Results - Habitat Relationships

A literature review of terrestrial furbearers and their habitat requirements was completed. Habitat requirements are summarized in order to provide direction for future implementation efforts.

Furbearers are increasingly recognized as an important component and an indicator of healthy natural communities. Forested ecosystems including mature to old-growth successional stages of coniferous or mixed forest provide one or more habitat requirements for many furbearer species. Old growth is recognized as an

important habitat components for forest dwelling furbearers. Three structural components are of major ecological importance in old growth stands: 1) living over-mature trees, 2) standing dead trees (snags) and 3) relatively large amounts of woody debris on the forest floor. In general, old-growth forests are structurally more diverse than younger age or even age stands because of the patchiness of the understory. Forest structural diversity is the primary determinant of furbearer habitat and overall species diversity (Harris and Marion 1981: cited in Allen 1987). Structural diversity including snags and woody debris contribute to suitable cover and foraging habitat for several forest-dwelling furbearers (Allen 1987).

Because they rely on late seral stage or climax forest communities (Slough 1989), marten have been identified as a species indicative of the relative health of natural communities. Some important habitat relationships have been described for this species. Most marten activity occurs in mature, mesic spruce-fir forests in a study in the northern Rockies of Montana and Idaho (Koehler and Hornocker 1977). Marten generally avoid areas with large openings in the forest canopy, particularly during winter (Hawley and Newby 1957, Koehler and Hornocker 1977).

The importance of late successional forest habitat to provide den sites and habitat for preferred prey species has been demonstrated. Several studies have documented the importance of snags and woody debris as an integral component of seasonal marten habitat. Preferred den sites have been described in California forests as large diameter, highly decayed spruce during both summer and winter (Spencer et al. 1983). Larger well decayed spruce and fir snags provide resting or refuge sites for marten in Wyoming (Clark and Campbell 1976).

Woody debris has also been identified an important component in marten habitat. Downed logs provide access to areas below the snow surface and are critical to marten foraging strategies. The abundance of woody debris may also influence prey availability for martens. Fluctuations in small mammal densities in Montana are believed to directly influence the habitat carrying capacity for marten (Weckwerth and Hawley 1962).

Timber removal generally has the greatest negative influence on furbearers that depend on old-growth or forested cover types. The philosophy of sustained yield, even-age stands, and short rotations is generally not conducive to providing habitat for furbearers that require relatively large units of decadent or structurally diverse forested habitat. Management recommendations should consider leaving trees of declining vigor to ensure future snag and den site availability (Wynne and Sherburne 1984: cited in Allen 1987). Stands comprised of trees in various age and size classes provide

marten with greater diversity and abundance of foraging areas, potential prey and protective cover than even-age stands (Hargis and McCullough 1984: cited in Allen 1987).

In addition, preserving preferred habitats or enhancing marginal habitats without considering the influence of surrounding areas may result in ineffective habitat units. Species dependant on mature or old-growth forests, such as marten, will not find all their habitat requirements within any single forest stand. It is important to maintain diversity between and within stands to enhance furbearer habitat and to allow for movement between suitable habitat components.

Habitat selection by lynx is not well understood. Lynx depend on the snowshoe hare (*Lepus americanus*) as their principal food and, presumably, good hare habitat is good lynx habitat (Quinn and Parker 1987). Snowshoe hares depend on early stages of forest succession to meet their habitat requirements. However, the extent of clearcut areas also influences lynx habitat quality. Large clearcut and early successional habitats (<15 years old) are probably of minimum value to lynx because of the absence of vegetative cover and a reduction in snowshoe hares (Allen 1987). Suitable lynx habitat in intensively managed forests can be maintained by keeping clearcut areas relatively small and by maintaining interspersions among clearcut areas, uneven-age stands, and mature forest (Parker et al.: cited in Allen 1987).

#### Summary of Significant Results - Furbearer Management Coordination

Scoping meetings were held with representatives of the major land managers in the Swan valley. The land managers include the Flathead National Forest (FNF), Montana Department of State Lands (DSL), and Plum Creek Timber Company, Inc. The purposes of the meetings were three-fold: 1) determine whether protection of furbearer habitat is a priority issue for the major land managers; 2) determine if a cooperative effort to develop management guidelines is a reasonable strategy; and 3) determine how existing or future management programs for the participating land managers would benefit.

Terrestrial furbearers and their habitats were considered timely issues for all participants in the scoping meetings. The U. S. Forest Service has designated marten as a Management Indicator Species for old growth habitat in Region One, which includes northwestern Montana. The regional office of the Forest Service is also considering listing the marten, fisher, and Canada lynx as "sensitive species" region wide.

MDFWP lists terrestrial furbearers as the number 9 priority out of

16 wildlife species in region One (northwest Montana). Currently, furbearers are managed by regulating bag limits. Harvest results are monitored by statewide surveys and a tagging program. For the past four years, MDFWP has conducted region-wide winter track surveys to monitor distribution and abundance of marten, fisher, wolverine, bobcat, and lynx. Research on fishers is being conducted in cooperation with the University of Montana and USFS. The focus of the research has been on re-introducing fishers into the Cabinet Mountains of western Montana. Region One has recommended closing the lynx season for the past three years.

Plum Creek Timber Company is using marten and goshawk as an indicator species on the status and condition of late successional timber stands under their management. Plum Creek Timber Company is currently monitoring the effects of management practices on marten in the eastern Cascade Mountains of Washington. "Basin management plans" are being developed for these species. The plan will help identify areas not meeting marten habitat criteria or those areas that currently support marten habitat but may be threatened in the future.

The DSL does not currently recognize any special status for terrestrial furbearers. However, DSL is developing standards and guidelines for snag management and old growth forests. Riparian habitat is also considered during timber harvest planning with Streamside Management Zones.

All participants in the scoping process indicated a willingness to cooperate on developing terrestrial furbearer management guidelines for northwestern Montana. The timing of this effort is very appropriate because of each entity's need to develop their own furbearer management plans.

During this scoping process, the type and level of potential cooperation was discussed. The FNF will provide a representative in the process. Habitat maps of the Swan valley can be generated through their Geographic Information system. If detailed or extensive information is required, then specific proposals may be implemented through the Forest Service "challenge grant" program.

Plum Creek Timber company has recently hired a full time biologist to manage wildlife on their properties in Montana. A portion of the biologist's time will be allocated to cooperate on the furbearer management planning. Plum Creek Timber would like to see a program that augments their ongoing programs. Currently, approximately 1,000 acres in the Swan valley are in deferred status to protect white-tailed deer winter range. In addition, existing timber management practices must include strategies to protect riparian areas and watershed values.



Strategies to develop the most effective process to develop management guidelines and their implementation were discussed. A steering or technical committee was suggested to organize the program. Committee members would provide the "sideboards" or program boundaries and identify specific objectives and goals. The committee would also provide a vehicle for developing a program that incorporates the various entities individual objectives into a single focus.

#### Recommendations for Future Actions

1. Establish the Furbearer Technical Committee to develop goals and objectives for the program (July 1991 - December 1991).
2. If recommended by the technical committee, develop a temporary (1-2 year) shared cost position to develop and implementterrestrialfurbearermanagementguidelines for state and federal lands (FY93).

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